

30. (Amended) The method of claim 29, wherein allowing said bronzing agent to yield adjusts the distance separating the integrated circuit die and the substrate by deforming said bronzing agent.

R E M A R K S

I. Introduction

In response to the Office Action, Applicants have amended claims 3, 5, 9, 18, 20, 27 and 30 in accordance with the Examiner's comments, so as to overcome the rejection of the claims under 35 U.S.C. § 112, second paragraph. In addition, claims 32-54 have been cancelled, without prejudice, as these claims were subject to a restriction requirement and were not elected for prosecution on the merits in the instant application.

II. The Rejection Of Claims 1-31 Under 35 U.S.C. § 112, Second Paragraph, As Being Indefinite, Has Been Overcome By Applicants' Amendments To The Claims

Claims 1-31 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter of the invention. As set forth in the Office Action:

Claim 27 is objected to because the term "AUPb2" appears to be grammatically incorrect.

Claims 1-31 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 1-10, 13, 14, 16-26, 29 and 30 the scope of the phrase "bronzing agent" is unclear.

In claims 3 and 18 the phrase "said bronzing agent comprises about 100 weight % Pb" appears to be incorrect because the transitional term "comprises" is inclusive of additional materials, yet, the phrase "100 weight %" is exclusive of additional materials.

In claims 5 and 20 the phrase "comprises pure indium" appears to be incorrect because the transitional term "comprises" is inclusive of additional materials, yet, the term pure is exclusive of additional materials.

In claim 9, line 9, and claim 30, the phrase "the distance" has insufficient literal antecedent basis.

In claim 12 the scope of the phrase "hermetic bond" is unclear.

Claims 1 and 16 appear to be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112 set forth in this Office action.

Claims 2-15 and 17-31 appear to be allowable if rewritten to overcome the rejection under 35 U.S.C. 112 set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

(Office Action, pages 2-3).

In response to the foregoing rejection, Applicants have amended claims 3, 5, 9, 18, 20, 27 and 30 so as to address the comments set forth in the pending rejection. Applicants respectfully submit that the claims, as amended, satisfy all requirements of 35 U.S.C. § 112.

With regard to the use of the term "bronzing agent," Applicants submit that the term is clear and unambiguous when read in light of the specification. More specifically, referring

to pages 10 and 11 of the specification, the "bronzing agent" (14) is a covering or coating disposed on the barrier layer 12, which functions to form a bond with the gold bump 16. The bronzing agent 14 also functions to compensate for variations in the height of the gold bumps 10,16 during the alloying process. In order to achieve these functions, the bronzing agent 14 is selected so as to have a lower yield point than the gold utilized for the gold bumps 10,16 in the die 2 and the substrate 4. The specification further provides the preferred composition of the bronzing agent of the present invention.

As repeatedly stated by the Federal Circuit, claims must be read in view of the specification and need only reasonably apprise those of skill in the art Hybritech Inc. v. Monoclonal Antibodies, Inc., 802 F.2d 1376 (Fed. Cir. 1986), and a patentee can be his own lexicographer ZMI Corp. v. Cardiac Resuscitator Corp., 844 F.2d 1576 (Fed. Cir. 1988). Thus, as the specification clearly discloses all relevant aspects of the "bronzing agent" necessary for one of skill in the art to practice the present invention, Applicants respectfully submit that the term "bronzing agent" set forth in claims 1-10, 13, 14, 16-26, 29 and 30 satisfies all requirements of 35 U.S.C. § 112, second paragraph.

Finally, with regard to the term "hermetic bond" utilized in claim 12, Applicants submit that this term is also clear and unambiguous. Specifically, the term implies that the bond formed

is "air-tight." In other words, neither air, gas or solution can pass through the bond. This interpretation is in complete accord with the definition of the term "hermetic."

For all of the foregoing reasons, Applicants respectfully submit that the current rejection of claims 1-31 under 35 U.S.C. § 112, second paragraph, is overcome, and therefore request that the rejection be withdrawn.

III. Summary

Having fully and completely responded to the Office Action, Applicants respectfully submit that all claims are now in condition for allowance, an indication of which is respectfully solicited.

Respectfully submitted,

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